DOCUMENT RESUME

ED 433 760 HE 032 310

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TITLE	Where Are the Liberal Arts? AIR 1999 Annual Forum Paper.
PUB DATE	1999-06-00
NOTE	23p.; Paper presented at the Annual Forum of the Association for Institutional Research (39th, Seattle, WA, May 30-June 3, 1999).
PUB TYPE	Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Educational Trends; Higher Education; *Intellectual Disciplines; *Liberal Arts; *Majors (Students); Research Universities; Trend Analysis
IDENTIFIERS	*AIR Forum; College Student Experiences Questionnaire; *Liberal Arts Colleges

ABSTRACT

This study examined trends in students majoring in the liberal arts. Responses to the College Student Experiences Questionnaire at each of five types of institutions (Selective Liberal Arts, General Liberal Arts, Comprehensive Colleges and Universities, Doctoral Universities, and Research Universities) and at four time periods (1983-86, 1990-91, 1993-96, and 1997-98) were examined. Analysis found that the percent of students majoring in the basic disciplines that are the foundation fields of liberal education (sciences, humanities, and social sciences) has decreased in the selective liberal arts colleges and has recently increased at research universities. As the gap in the percent of basic field majors has become smaller, student reports of activities and progress toward liberal education outcomes at research universities have become similar to responses by students at selective liberal arts colleges. Results are discussed in relation to criticisms of liberal arts colleges and research universities and the significance of this possible trend. (Contains 18 references.) (DB)

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WHERE ARE THE LIBERAL ARTS?

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HE 032 310

AIR
for Management Research, Policy Analysis, and Planning

This paper was presented at the Thirty-Ninth Annual Forum of the Association for Institutional Research held in Seattle, Washington, May 30-June 3, 1999.
This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of AIR Forum Papers.

Dolores Vura
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WHERE ARE THE LIBERAL ARTS?

Responses to the College Student Experiences Questionnaire at each of five types of institutions (Selective Liberal Arts, General Liberal Arts, Comprehensive Colleges and Universities, Doctoral Universities, and Research Universities) and at four time periods (1983-86, 1990-91, 1993-96, and 1997-98) show that the percent of students majoring in the basic disciplines that are the foundation fields of liberal education (sciences, humanities, and social sciences) has decreased in the Selective Liberal Arts colleges and has recently increased in the Research Universities. As the gap in the percent of basic field majors has become smaller, so correspondingly students reports of activities and progress toward liberal education outcomes at Research Universities have become more similar to students responses at Selective Liberal Arts colleges. Two questions are raised and discussed. How do these results relate to widespread critiques of liberal arts colleges and research universities? Are the results of this study representative of an important trend; or might they be owing to a limited and possibly unrepresentative sample of students and institutions?

WHERE ARE THE LIBERAL ARTS?

Arthur Cohen's recent book, *The Shaping of American Higher Education*, (Cohen 1998), clearly documents major trends in the last half of the twentieth century. Most relevant for the present report is the very large expansion of research activities and the increased vocationalism of students and curricula. Research activities have expanded to such an extent that the Carnegie Foundation identifies a special category of institutions called Research Universities. Vocationalism has expanded to such an extent that many liberal arts colleges offer more degrees in vocational fields than in liberal arts. The consequences of these trends are that, in the universities, the teaching of undergraduates is not nearly as highly rewarded as the production of research, and that the traditional liberal arts colleges may now be an endangered species. One gets the impression that liberal education is hard to find in the liberal arts colleges as well as in the universities.

With regard to vocationalism, Cohen (1998) cites data from the National Center for Educational Statistics showing that between the mid-1970s and the mid-1990s there were large increases in the number of degrees offered in computer science, communication, business, engineering, and health, with career fields accounting for 58% of all bachellors degrees; whereas in various liberal arts fields there were modest increases in economics, political science, English, and biological science, and modest decreases in physical science, mathematics, sociology, and foreign language.

In a report of 30-year trends in the annual surveys of entering freshmen, Astin (1998) notes a sharp increase in materialism. In 1966 the percent of students saying that "developing a meaningful philosophy of life" was an essential or very important goal was 80%, but in 1996 it was down to 42%. The materialist goal of "being very well-off

financially" was regarded as essential or very important by 45% in 1966, but in 1996 it was up to 74%.

Breneman (1990) has pointed out that many of the so-called liberal arts colleges would be more accurately called small professional schools. If the college awards 40% or more of its degrees in basic liberal education subjects it can properly be called a liberal arts college; but if it awards 60% or more of its degrees in vocational fields it is really a small professional school. Pace (1997) arranged a group of 13 General Liberal Arts colleges (GLA) in rank order according to the percent of students majoring in basic liberal education subjects and reported percentages ranging from 72% to 23%. There were six colleges with from 43% to 72% liberal arts majors and seven with vocational majors ranging from 59% to 77%. The division into these two groups is almost exactly what Breneman proposed. The latter group was labeled VLA, for Vocational Liberal Arts. Student responses to the College Student Experiences Questionnaire from the VLAs were very similar to ones from the Comprehensive Colleges and Universities (CCU), not only with respect to reported outcomes but also to student activities, showing clearly the vocational orientation of those schools.

Levine and Cureton(1998) state that today's students approach college with consumer expectations for convenience, quality, service, and cost. Only a very small number of selective residential liberal arts colleges still reflect the historic ideal of a community of students and teachers devoted to the intellect. Nationally, the Selective Liberal Arts colleges enroll no more than 3% of the undergraduates in bachellors degree-granting institutions.

The common criticism of Research Universities (RU) about the teaching of undergraduates has some support in data from the norms for the third edition of the CSEQ (Kuh, Vesper, Connally, and Pace, 1997). One-fourth of the students at RUs indicated that they had never made an appointment to meet with a faculty member during the current school year; and one-fourth said that they had never discussed ideas for a

term paper or other class project with a faculty member. Also, in their relationships with faculty members only 36% of the students at RUs characterized them as "approachable, helpful, understanding, encouraging" in contrast to 64% at SLAs. In fact, relationships with faculty members were characterized as "remote, discouraging, unsympathetic" by 18% of the students at RUs but by only 5% at SLAs.

Granted the justification for all of the above comments about higher education, there may nevertheless be some emerging indications that liberal education is not really disappearing. This more optimistic conclusion comes from examining a different set of data.

The data for this different look come from responses to the College Student Experiences Questionnaire (CSEQ) obtained from samples of students at each of five institutional types -- Selective Liberal Arts colleges (SLA), General Liberal Arts colleges (GLA), Comprehensive Colleges and Universities (CCU), Doctoral Universities (DU), and Research Universities (RU) -- and at each of four time periods, 1983-86, 1990-91, 1993-96, and 1997-98. The CSEQ does not ask students if they are majoring in the liberal arts; but it does distinguish between majoring in basic academic disciplines and majoring in applied or vocational fields. The sciences, humanities, and social sciences are the foundation fields of liberal education. We might assume that majoring in basic academic disciplines is closer to "liberal arts" than majoring in applied fields such as business, engineering, education, health fields,etc.. So, has the percent of students majoring in the basic disciplines of liberal education been declining? And what difference does it make?

The major field is one of the most influential variables in studies of student outcomes. It accounts for at least a third, and sometimes more, of students course work in college. Its magnitude is not reduced by the changing demographic characteristics of todays student body, or by the type of institution attended.

Pace (1997) found large differences between major fields in the responses to the CSEQ at ten DU/RU institutions in the 1990s. This total population of about 7000 students was sorted by majors in the basic fields of biological sciences, physical sciences, humanities, and social sciences, and by majors in various applied fields such as Health, Engineering, Business, Education, Computers, Agriculture, etc. Substantial differences in outcomes between the four basic fields were found on 18 of the 23 listed in the questionnaire. The differences were especially large between sciences and humanities. There were also significant differences in mean scores on 6 of the 14 activity scales in the CSEQ. Differences between the applied fields were substantial in 22 of the 23 goals listed in the questionnaire, and there were significant differences between applied fields on all 14 of the activity scales. In none of these comparisons was there any effort to control for student input. The major field, as an important category of undergraduate experience, automatically and necessarily includes the characteristics of students in the field. Behaviorally, majoring in a field means not only studying the particular subject matter but also associating with other students who are studying the subject matter, and with faculty members who are experts in the field. Moreover, there is a selective attraction between students and subjects. Holland's (1985) theory of vocational choice has also been applied to students choice of a major in college, and with the same personality orientations that Holland labels as realistic, investigative, artistic, social, enterprising, and conventional. Smart (1997) reported significant relations between groups of majors identified by Holland's theory of vocational choice/personality and relevant outcomes, controlling for student input. Stark (1998) in a study of several professional preparation programs was able to distinguish among them by their main service roles -- human client fields, information fields, enterprising fields, and artistic fields. These groupings are not unlike Holland's personality clusters. This illustrates

again that major fields, whether basic or applied, are characterized and differentiated by much more than their subject-matter content. Accepting the importance of majors, we now turn to the CSEQ data showing how the percentages of majors in basic academic fields and applied fields have changed in the past dozen years at each of five instututional types. These data are shown in Table 1.

At the Selective Liberal Arts colleges, the percent of students majoring in the basic disciplines of liberal education was 80% in 1983-86, and went down to 57% in 1997-98.

At the General Liberal Arts colleges, the percentages majoring in the basic fields remained fairly steady over the four time periods at around one-third.

At the Comprehensive Colleges and Universities, the percentages over the time periods were typically about one-fourth.

At the Doctoral Universities, the percent of basic majors rose from about one-fourth in the first three time periods to a little more than one-third in the most recent time period.

At the Research Universities, the percent of majors in basic fields was around one-third during the first three time periods, and then rose to one-half in 1997-98.

Majoring in basic liberal education disciplines has declined in the Selective Liberal Arts colleges, and increased in the Research Universities.

What is happening to the liberal arts? They are moving to the Research Universities!

The very large change in the percent of majors in basic disciplines at SLAs and RUs should have some effect on student outcomes. The gap between SLAs and RUs was 43 percentage points in 1983-86 but only 8 percentage points in 1997-98. Presumably, students reports of progress toward

Table 1

Trends in the Percent of Majors in Basic and Applied Fields by Institutional Types

	Percent of students in major fields in 1983-86	in 1990-91	in 1993-96	in 1997-98
At SLA				
Basic	80	69	59	57
Applied	12	22	27	29
Other	8	10	15	14
At GLA				
Basic	35	37	33	38
Applied	56	50	54	48
Other	9	13	13	14
At CCU				
Basic	26	25	29	27
Applied	64	59	56	58
Other	11	16	15	15
At DU				
Basic	25	18	27	37
Applied	64	66	58	51
Other	11	17	15	12
At RU				
Basic	33	37	36	49
Applied	54	44	48	38
Other	13	19	17	14

liberal education goals at these two types of schools should be much more alike in 1997-98 than they were in 1983-86. From the list of goals in the CSEQ we selected six that we regarded as most germane to liberal education. Toward each of these goals, the percent of students believing that they have made substantial progress are compared. Table 2 shows the results. From this table one can see that the percent of students reporting substantial progress at RUs are generally higher in 1997-98 than they were in 1983-86. For some objectives the increase was fairly large -- from 24% to 42% for arts, from 48% to 61% for philosophies, and from 26% to 35% for literature. There were smaller increases for writing and breadth. Science was mostly unchanged. At the SLAs, despite the decline in the percent of majors in basic disciplines, students progress toward these objectives was not affected. SLAs, owing to their small size and their residential student body, perhaps have an overall character that prevails in the face of some shifts in curricula.

The objectives or goals were described as follows in the CSEQ:

> "Gaining a broad general education about different fields of knowledge."
> "Developing an understanding and enjoyment of art, music, and drama."
> "Broadening your acquaintance and enjoyment of literature."
> "Writing clearly and effectively."
> "Becoming aware of different philosophies, cultures, and ways of life."
> "Understanding the nature of science and experimentation."

To each of the statements the students could respond by checking "very little", "some", "quite a bit", or "very much". The percentages shown in the table are the sum of

Table 2

Trends at SLAs and RUs in the Percent of Students Indicating Substantial Progress Toward Liberal Education Goals

Goals	83-86	90-91	93-96	97-98
At RU Institutions				
Breadth	62	65	61	67
Arts	24	24	27	42
Literature	26	31	29	35
Writing	50	56	53	55
Philosophies	48	50	50	61
Science	42	36	37	36
At SLA Institutions				
Breadth	85	82	76	80
Arts	45	49	41	51
Literature	55	52	45	52
Writing	71	67	67	69
Philosophies	71	70	65	72
Science	37	34	34	35

"quite a bit" and "very much" and are described as substantial gain.

In the other three types of institutions -- GLA, CCU, and DU -- where the percentages of basic majors was relatively unchanged over the four time periods, the percentages of students indicating substantial gains was also relatively unchanged over the four time periods.

In Table 3 we rearrange some of the percentages from Table 2 in order to highlight the size of the differences between RUs and SLAs in 1983-86 and 1997-98. Then we add the results of students responses to other goals, their impressions of the college environment, and their participation in various activities.

The additional goals were:

"Developing your own values and ethical standards."

"Understanding yourself -- your abilities, interests, and personality."

Understanding other people and the ability to get along with different kinds of people."

The environment was characterized along a seven point rating scale ranging from strong emphasis to weak emphasis on the following three aspects of students development:

"Emphasis on the development of academic, scholarly, and intellectual qualities."

"Emphasis on the development of esthetic, expressive, and creative qualities."

"Emphasis on being critical, evaluative, and analytical."

The percentages in the table are the responses of 6 or 7 at the strong emphasis end of the seven point rating scale.

Finally we have indicated the frequency of student participation in six activities that suggest the intellectual vitality of students out-of-class conversations, as follows:

"Serious discussions with students whose philosophy of life or personal values were very different from yours."

Table 3

Differences in Percentages Between RU and SLA in Various Indicators of Liberal Education

	in 1983-86			in 1997-98		
	RU	SLA	diff	RU	SLA	diff
Gains						
Breadth	62-85		23	67-80		13
Arts	24-45		21	42-51		9
Literature	26-55		29	35-52		17
Writing	50-71		21	55-69		14
Philosophies	48-71		23	61-72		11
Science	42-37		+5	36-35		+1
Values	62-74		12	67-71		4
Self	74-81		7	75-78		3
Others	75-80		5	75-76		1
Analysis	64-79		15	67-70		3
Synthesis	68-80		12	68-70		2
Inquiry	77-84		7	74-78		4
Environment						
Scholarly	58-87		29	71-89		18
Esthetic	19-41		22	26-56		30
Critical	39-71		32	59-74		15
Conversations						
Values	42-56		14	55-55		0
Religion	38-52		14	49-48		+1
Politics	34-51		17	47-40		+7
Social problems	35-51		16	42-52		10
Life styles	35-48		13	56-65		9
Critics	19-38		19	32-42		10

"Serious discussions with students whose religious beliefs were very different from yours."
"Serious discussions with students whose political opinions were very different from yours."
"Major social problems such as peace, human rights, equality, justice."
"Different life styles and customs."
"The ideas and views of other people such as writers, philosophers, historians."

To these activity items the responses of "often" and "very often" were combined and called "frequent".

From the numbers in Table 3 it is very clear that the RUs and SLAs are much more alike in 1997-98, when 49% of the majors in RUs were in basic liberal education disciplines compared to 57% in SLAs, than they were in 1983-86 when only 33% at RUs were majors in the basic disciplines compared to 80% at SLAs. This closing of the gap between RUs and SLAs is evident not only in the content goals, but also in goals related to personal/social development and to intellectual skills that are not specifically related to subject matter. Moreover, more students perceived the environment as having a strong emphasis on scholarly and critical qualities when the percent of majors in basic fields at RUs increased. Perception of the environment as having a strong emphasis on critical and evaluative qualities is reinforced by a corresponding increase in the frequency of critical/intellectual conversations among students at RUs.

When we tabulated responses to the same aspects of liberal education that we included in Table 3, but now limited the responses to students who majored in basic disciplines, the large gap between RU and SLA for 1983-86 shown in Table 3 was reduced somewhat, typically by about 4 percentage points. For the 1997-98 data, there were reductionson on the average of only 2 percentage points. How credible are the data we have presented in Tables 1, 2, and 3 ?

Although the population base for this study includes CSEQ responses from 101,657 students and 194 institutional

reports, the numbers are much smaller for RUs and SLAs only, and only for the 1983-86 and 1997-98 time periods. In 1983-86 there were 10 RUs with 8476 student responses; and in 1997-98 there were 9 RUs with 7560 student responses. For the SLAs there were 8 with 3221 responses in 1983-86; but only 4 with 1043 responses in 1997-98. We have not reported the names of these institutions, but in our opinion they are of comparable quality. For inclusion in the study the SLAs had to have reports from at least 160 students and the RUs had to have at least 300. Also the reports had to come from a reasonably good cross section of students, with generally comparable percentages of lower and upper division students. If the number of cases at an institution was several times larger than the other institutions in the category, an appropriate random sample of its cases was drawn so that no institution dominated the result. We made several checks of the data to see if there was any obvious bias in the samples. For example, the percent of upper division students at RUs and SLAs was similar -- 42% at RUs in 1997-98 and 41% at SLAs. Also, among the basic disciplines, the relative proportions were unchanged. At RUs the proportions in Science, Social Science, and Humanities were 42%, 40%, and 18% in 1983-86 and exactly the same in 1997-98. At SLAs the proportions were 30%, 34%, and 36% in 1983-86 and were 33%, 34%, and 33% in 1997-98. Among the applied fields there were a few changes between 1983-86 and 1997-98. At the RUs there was some decline in Engineering; and at the SLAs there was some increase in Education and Health fields. Despite efforts to eliminate bias in the CSEQ samples for this study, it is possible that national data from other sources would not show the substantial changes we have reported.

The most definitive analysis of national trends in the percentages of liberal education majors is reported by Gilbert (1995). Her information comes from the CASPAR data base produced by Quantum Research Associates for the National Science Foundation. It includes all Liberal Arts 1 and Liberal Arts 11 colleges and a random sample of RUs and

CCUs. The liberal arts colleges correspond to our labels of SLA and GLA. She plots trends from 1956 to 1992, but our comparisons are for 1984 and 1992. With one important exception her data are very similar to ours. She reports liberal arts majors of 23% and 29% at CCUs, compared with our figures of 26% and 27%. For the GLAs she reports 31% at both dates. We reported 35% and 38%. No data are reported for DUs. For RUs Gilbert's article shows 35% liberal arts majors in 1984 and 45% in 1992. The rise reported from the CSEQ samples was from 33% to 49%. This is the only institutional category showing a clear increase in liberal arts majors. The big difference between Gilbert and the CSEQ is in the percent of liberal arts majors in the SLAs. Both reports are about the same for 1984 -- 76% and 80% --, but there is no subsequent decline in the percent of liberal arts majors in the national data base. The large decline in liberal arts majors shown in the CSEQ samples -- from 80% to 57% -- in not confirmed by the national data base. Although the gap between SLAs and RUs in the percent of majors in the basic disciplines has indeed narrowed, it has narrowed from from 41 percentage points to 33 percentage points, probably not from the 47 percentage points to 8 points that occured in the CSEQ data. We can still say that the liberal arts are increasing in the RUs but we cannot confidently say that they are decreasing in the SLAs.

For an additional check on the credibility of the CSEQ percentages for majors in the basic disciplines at RUs we obtained information from IPEDS. We selected a random sample of 20 RUs, determined the percentages of degrees in different major fields, and compared the results in 1989-90 and 1996-97. In the 1996-97 time period we found 55% Basic majors, 43% Applied majors, and 3% Other. In the 1989-90 time period there were 51% Basic majors, 44% Applied majors, and 5% Other. Among the 20 randomly selected RUs, 9 showed an increase in Basic majors, 8 showed a decrease, and 3 were unchanged between the two time periods. The net increase was 4 percentage points. All the data sources lead to the

conclusion that there has been a large increase in the percentage of liberal arts majors at RUs between the mid-1980s and the late 1990s -- from approximately one-third to the current one-half.

We do not know why the CSEQ reports from SLAs show a decline in the percent of basic liberal education majors when in fact the nation-wide data reported by Gilbert (1995) show that there has been no decline. Using the CSEQ is a voluntary choice by the institution, but the samples do not seem to be biased in any obvious way. We believe Gilbert's data are correct; and the CSEQ data are biased in some unkown way.

The future of many small liberal arts colleges may indeed be precarious but that condition applies mainly to the ones that have a high percentage of vocational majors. Instructional technology, enabling students to take courses on the Internet, has focused so far on specific vocational knowledge; but that has an obvious impact on those liberal arts colleges that have developed many vocational majors. In a much broader sense, Green (1999) believes that the emergence of distance learning, distributed learning, and online learning should be viewed as a new fourth sector of higher education along with universities, residential colleges, and commuter institutions. In any case the newer forms of delivery by for-profit agencies will push traditional institutions to clarify what they do best and value as most important.

The special character of SLAs is the subject of the entire Winter 1999 issue of Daedalus, entitled Distinctively American: The Residential Liberal Arts Colleges. Although academic selectivity is not one of the themes in the articles, every time a specific college is mentioned by name it is a SLA. Moreover, of the 13 articles in the journal three are written by presidents of very selective liberal arts colleges, and two by trustees of very selective liberal arts colleges. In his chapter for Daedalus, Astin (1999) states that "residential liberal arts colleges in general,

and highly selective liberal arts colleges in particular, produce a pattern of consistently positive student outcomes not found in any other type of American higher education institution". Hersh (1999) states that the appropriate ends of education are "the skills, knowledge, and competencies derived from the study of the arts, humanities, social sciences, mathematics, and sciences".(p.195) He further believes that "residential liberal arts colleges -- by virtue of their primary focus on teaching, their small size, residential nature, quest for genuine community, engagement of students in active learning, concern for a general and coherent education, and emphasis on the development of the whole person -- provide the most important kind of undergraduate education for the twenty-first century".(p.195) Neely (1999) notes that large universities that are creating honors colleges within their larger structure are "accepting by imitation that the liberal arts model remains the ideal form of undergraduate education" (p.44).

Obviously there are many educationally powerful differences between SLAs and RUs over and above the percent of majors in basic liberal education disciplines that has been the focus of the analysis of CSEQ data. Nevertheless. the large increase in the percent of basic majors at RUs has been accompanied by student outcomes that more closely resemble outcomes at SLAs today than they did a dozen years ago.

The report of The Boyer Commission on Educating Undergraduates in the Research University (1998) acknowledges the usual criticisms about large classes, teaching assistants, faculty rewarded for research, etc., but goes on to discuss and describe how research universities can use their unique resources to create an outstanding educational experience for undergraduates. They can use their special resources to provide a genuine research experience for undergraduates; and these research experiences should be planned and provided for all undergraduates. Clark (1997)

asserts that research should be viewed as an important method of teaching and a valuable means of student learning. Research activity is " a scholarly process for learning how to define problems and map a line of investigation...a way to induce critical thinking and to develop inquiring minds, an active mode of learning...".(p.251) It is an activity that is relevant for all levels of education. Advocates of reform in elementary and secondary education have argued that schools should promote active learning through discovery and problem-solving. Schneider and Shoenberg (1995) state that in undergraduate education a focus on outcomes means an emphasis on the student as learner -- problem-solving skills, collaborative skills, experiential learning.

Kuh and Hu (1999) reported a study of RUs based on data from the CSEQ in the mid-1980s and the mid-1990s. They devised an overall index of learning productivity that included all the activity scales and gains items plus time on school work and reading and writing activities. Two of their findings are especially pertinent to the present report. They found that the gap in outcomes between RUs and SLAs had been reduced somewhat in the decade, and that there was a group of highly productive RUs in the 1990s that was very similar to the SLAs. These high performing RUs were mostly very selective private universities; and we know from our own data that such institutions typically had the highest proportions of undergraduate majors in basic liberal education disciplines.

The answer we first gave to the question that is the title of this paper, "Where Are the Liberal Arts? needs to be modified. The liberal arts have not moved to the research universities from other types of institutions; but their size and influence at the research universities has increased. They now account for at least half of undergraduate majors whereas a dozen years ago they accounted for one-third. The result has been a range of student outcomes that are now much closer to the outcomes found at selective liberal arts colleges -- outcomes related to intellectual skills and

personal development as well as ones related to academic content. At the same time the dominance of basic liberal education disciplines at the SLAs has not diminished. It is as strong as ever; and the values of undergraduate education at SLAs are asserted as vigorously and confidently as ever. For the RUs, the direction for enriching the undergraduate experience through participation in research, recommended by the Boyer commission, fits neatly into Burton Clark's view of research as a method of teaching and of learning. Active participation in research, discovery learning, and problem solving could become hallmarks of education at the RUs.

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